

Department of Energy

Ohio Field Office West Valley Demonstration Project 10282 Rock Springs Road West Valley, NY 14171-9799

January 12, 2004

DW:2004:0009

Mr. Russell A. Mellor, President/Project Director West Valley Nuclear Services Company 10282 Rock Springs Road West Valley, NY 14171-9799

Recd.

Rec. Mgmt. January 12, 2004

ATTENTION: W. M. Wierzbicki, Environmental Affairs Manager, WV-50

SUBJECT: Environmental Checklist OH-WVDP-2003-03, "Site-Wide Routine Maintenance

Activities"

REFERENCE: Letter WD:2003:0551 (89983), W. M. Wierzbicki to T. J. Jackson,

"Environmental Checklist OH-WVDP-2003, "Site-Wide Routine Maintenance

Activities," dated November 17, 2003 (Reissued 12/15/03)

Dear Sir:

The U.S. Department of Energy West Valley Demonstration Project (DOE-WV) National Environmental Policy Act (NEPA) Compliance Officer has reviewed the subject Environmental Checklist and agrees that the routine maintenance activities described therein are categorically excluded per Title 10, Code of Federal Regulations Part 1021, Appendix B to Subpart D, CX B 1.3, "Routine maintenance/custodial services for building, structures, infrastructures, and equipment."

Enclosed is a signed environmental checklist/action description memorandum form.

The contents of this correspondence are not intended to impact or modify contract scope and/or cost. If you have any question, please contact Dan Sullivan on Extension 4016.

Sincerely,

T. J. Jackson, Acting Director West Valley Demonstration Project

Enclosure: Environmental Checklist/Action Description Memorandum

cc: J. R. Craig, OH/OOM, w/o enc.

DWS:90286 - 451.2

DWS/mls



Department of Energy (DOE) Ohio Field Office, West Valley Demonstration Project (OH/WVDP)

ENVIRONMENTAL CHECKLIST

Project/Activity Title: Site-Wide Routine Maintenance Activities	NEPA ID Number: OH-WVDP-2003-03	Rev.	#: 0	Date: 10/22/2003
Contractor Project Manager: William M. Wierzbicki	Phone Number: (716) 942-2091			
Contractor NEPA Coordinator: Jerald J. Hoch	Phone Number: (716) 942-2409			
OH/WVDP NEPA Document Manager: Daniel W. Sullivan	Phone Number: (716) 942-4016			

A. BRIEF PROJECT/ACTIVITY DESCRIPTION: Attach a detailed description or statement of work.

B. SOURCES OF IMPACT: Would the action involve, generate, or result in changes to any of the following?

	YES	NO	THE CONTRACTOR OF THE PROPERTY	YES	NO
1. Air Emissions	Х		12. Water Use/Diversion	Х	
2. Liquid Effluents	Х		13. Water Treatment	Х	
3. Solid Waste	Х		14. Water Course Modification		X
4. Radioactive Waste/Soil	Х		15. Radiation/Toxic Chemical Exposures	Х	
5. Hazardous Waste	Х		16. Pesticide/Herbicide Use	Х	
6. Mixed Waste	Х		17. High Energy Source/Explosives		Х
7. Chemical Storage/Use	Х		18. Transportation		Х
8. Petroleum Storage/Use	Х		19. Noise Level	Х	
9. Asbestos	Х		20. Workforce Adjustment	Х	
10. Utilities	Х		21. Other		Х
ll. Clearing or Excavation	Х	· TATATATATATATATATATATATATATATATATATATA			

In an attachment, qualify and explain each question that you have specifically answered "YES."

C. CATEGORY EVALUATION CRITERIA: Would the proposed action:

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1.	Take place in an area of previous or ongoing disturbance?	Х	<u> </u>
2.	Create hazardous, radioactive or mixed waste for which no disposal is available?		Х
3.	Impact a RCRA-regulated unit or facility?		Х
4.	Force a low income or ethnic minority population to shoulder a disproportionate share of the negative environmental impacts of pollution or environmental hazards because of a lack of political or economic strength?		х
5.	Involve air emissions and be located in an air pollutant non-attainment or maintenance area for any criteria pollutants?		х
6.	Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders? (i.e., require any federal, state or local permits, approvals, etc.)?		х
7.	Disturb hazardous substances, pollutants or contaminants that pre-exist in the environment such that there would be uncontrolled or unpermitted releases?		×
8.	Require siting, construction, or major expansion of a waste storage, disposal, recovery, or treatment facilities, but may include such categorically-excluded facilities?		х
9.	Adversely affect environmentally sensitive resources including, but not limited to: structures of archeological, historic or architectural significance; threatened or endangered species or their habitat; floodplains or wetlands; wildlife refuges, agricultural lands or vital water resources(e.g., sole-source aquifers)?		х
10.	Involve extraordinary circumstances? As specified at 10 CFR § 1021.410(b)(2), extraordinary circumstances are unique situations presented by specific proposed actions, such as scientific controversy about the environmental effects of the action, uncertain effects or effects involving unique or unknown risks, or unresolved conflicts concerning alternate uses of available resources within the meaning of Section 102(2)(E) of NEPA [42 U.S.C. 4332(2)].		х
11.	Be "connected" to other actions with potentially significant impacts, related to other proposed actions with cumulatively significant impacts, and precluded by 40 CFR § 1506.1 or 10 CFR § 1021.211?		х

In an attachment, qualify and explain each question that you have specifically answered "YES."

U.S. Department of Energy (DOE) Ohio Field Office, West Valley Demonstration Project (OH/WVDP)

ENVIRONMENTAL CHECKLIST

n	RECOMMENDATION	AND	DETERMINATION

DOE OH/WVDP Director's Recommendation: I find and recommend that this proposed action meets the criteria specified in 10 CFR § 1021, Subpart D, and/or DOE Policy and Guidance for the following:
[X] Categorical Exclusions (Appendix B, Class of Action <u>B1.3</u>) [] Actions Within the Scope of Existing NEPA Documentation
Director, Ohio Field Office, West Valley Demonstration Project (OH/WVDP), Department of Energy
DOE OH/WVDP NEPA Compliance Officer's Determination: Based on my review of the attached information concerning this proposed action, as the OH/WVDP NEPA Compliance Officer (DOE Order 451.1B, Section 5.d.), I have determined that the proposed action fits within the specified class of actions, that the other regulatory requirements identified in Section C are met, and that this proposed action proceed without further NEPA review. Signature: OH/WVDP NEPA Compliance Officer, West Valley Demonstration Project
OR
[] Environmental Assessments (Appendix C, Class of Action; or Action not listed in Subpart D) [] Environmental Impact Statements (Appendix D, Class of Action) [] Interim Actions (40 CFR § 1506.1 and 10 CFR § 1021.211) [] Integrated Documentation for CERCLA/RCRA Actions [] Variances (Emergency Action, 40 CFR § 1506.11 and 10 CFR § 1021.343) DOE-OH NEPA Compliance Officer's Concurrence: I concur with the recommendation that this proposed action fits within the specified class of actions.
Signature: Date
NEPA Compliance Officer, Ohio Field Office, Department of Energy
DOE-OH Manager's Determination: Based on my review of the attached information concerning this proposed action, as the Head of the Ohio Field Office (DOE Order 451.1B, Section 5.a.), I have determined that the level of documentation recommended for the proposed action is appropriate.
Signature: Date
Manager, Ohio Field Office, Department of Energy

SECTION A. BRIEF PROJECT/ACTIVITY DESCRIPTION:

BACKGROUND

From 1966 to 1972, Nuclear Fuel Services, Inc. (NFS), operated a nuclear fuel reprocessing plant at the Western New York Nuclear Service Center (WNYNSC) near West Valley, New York (Figure 1). The plant, which reclaimed uranium and plutonium from spent nuclear fuel, generated approximately 600,000 gallons of liquid high-level radioactive waste (HLW), which was stored in underground tanks.

In 1980, Congress passed the West Valley Demonstration Project (WVDP) Act, which directed the U. S. Department of Energy (DOE) to do the following: (1) solidify the HLW at the WNYNSC in a form suitable for transportation and disposal; (2) develop containers for the HLW that are suitable for permanent disposal; (3) transport the solidified HLW, in accordance with applicable provisions of law, to an appropriate Federal repository for permanent disposal; (4) in accordance with applicable licensing requirements, dispose of low-level radioactive waste (LLW) and transuranic (TRU) waste produced as a result of solidifying the HLW; and (5) decontaminate and decommission – (a) the tanks and other facilities of the WNYNSC in which the HLW solidified under the Project is stored; (b) the facilities used in the solidification of the waste; and (c) any material and hardware used in connection with the Project, in accordance with requirements that the Nuclear Regulatory Commission (NRC) prescribes (Public Law 96-368).

In 1982, a Final Environmental Impact Statement (EIS) and associated Record of Decision (ROD) were issued for the actions that DOE proposed to satisfy the first two requirements of the WVDP Act (DOE/EIS-0081). During the first phase of the WVDP, which was completed in September 2002, the HLW was immobilized in borosilicate glass through vitrification. The canisters of immobilized HLW are currently being stored on-site until DOE authorizes their removal. In 1993 and 1998, the DOE prepared Supplement Analyses of the 1982 Final EIS to re-examine ongoing HLW solidification activities as well as other refinements to the actions originally evaluated in the EIS (DOE-EIS-025 and WVDP-321, respectively). As a result of both analyses, DOE concluded that no environmentally relevant or substantial changes in Project scope had occurred, that no new circumstances or relevant information existed, and that the environmental analyses performed for the 1982 EIS were still valid.

The solidification of liquid and sludge HLW with glass-forming chemicals in a ceramic melter (i.e., vitrification) was completed in September 2002. Therefore, the WVDP has turned its attention and shifted its resources to the remaining requirements of the WVDP Act, waste disposal and facility decontamination and decommissioning. Two EIS's are currently being prepared to review alternatives for satisfying these requirements; WVDP Waste Management EIS (DOE/EIS-0337-D) and Decommissioning and/or Long-Term Stewardship EIS.

The WNYNSC and all the structures therein, including the area being utilized to conduct the WVDP (Figures 1 and 2), are the property of the state of New York and are managed by the New York State Energy Research and Development Authority (NYSERDA). The Cooperative Agreement between NYSERDA and DOE, Article IV, Section 4.08, Operation, Maintenance and Repair, states, "The Department shall operate and maintain the Project Premises, Project Facilities and such Additional Facilities that it uses in carrying out the Project and as may be necessary or appropriate to carry out the Project in a manner which protects public health and safety and complies with the provisions of this Agreement. As used in this Section, the term 'maintain' shall include, but not be limited to, the obligation to make all necessary and appropriate repairs, changes, alterations, and additions thereto or replacements thereof, interior and exterior, structural and non-structural, ordinary and extraordinary, foreseen and unforeseen."

In a similar manner, DOE Order 430.1B, "Real Property Asset Management," requires all DOE sites to maintain real property assets "in a manner that promotes operational safety, worker health, environmental compliance, property preservation and cost-effectiveness while meeting the program missions" (Attachment 1, Section 5). The Order defines maintenance as "Day-to-day work that is required to sustain property in a condition suitable for it to be used for its designated purpose, including preventive, predictive, and corrective maintenance" (Attachment 2, Section 36). Similarly, the Order defines repair as "The restoration of failed or malfunctioning equipment, system, or facility to its intended function or design condition. Repair does not result in a significant extension of the expected useful life" (Attachment 2, Section 52).

Routine maintenance activities, including custodial services, are performed at the WVDP by West Valley Nuclear Services Company (WVNSCO) Maintenance Department personnel and, in some instances, by subcontractors under the direction of WVNSCO personnel.

TYPE AND SCOPE OF ACTIVITY

The proposed action evaluated in this environmental checklist involves performing preventive, predictive, and corrective maintenance (i.e., repair) activities on a routine basis for the remainder of calendar year (CY) 2003 and through the year end of CY 2004 to ensure that WVDP facilities, processes, systems and/or equipment are maintained in a condition suitable for their intended use.

Corrective maintenance involves repair and restoration of equipment or components that have failed or are malfunctioning and are not performing their intended function (WVDP-170, "West Valley Nuclear Services Company Maintenance Manual," Section 5.5.2(a)). Predictive maintenance involve periodic monitoring and diagnosis in order to forecast component degradation so that "as-needed" planned maintenance can be performed prior to equipment failure (WVDP-170, Section 5.5.2(c)). Preventive Maintenance (PM) includes periodic and planned maintenance actions taken to maintain a piece of equipment within design operating conditions and extend its life, and is performed prior to equipment failure or to prevent equipment failure (Standard Operating Procedure (SOP) 000-12, "Maintenance Department - Preventive Maintenance Program").

Routine maintenance activities are an integral and necessary part of the day-to-day operations of the WVDP. The WVDP currently covers routine maintenance activities under a generic environmental checklist (OH-WVDP-2000-01), which the WVDP typically reviews annually and updates as required, as recommended by the DOE Ohio Field Office (DOE-OH)[Subsection 5.2(c), SOP OH-6.1.01]. DOE-OH allows the five project sites that fall under its auspices to prepare generic environmental checklists for some categorically excludable activities, such as routine maintenance. The President's Council on Environmental Quality (CEQ) requires federal agencies to establish categorical exclusions (CXs) for categories of actions that the agencies have determined do not individually or cumulatively have a significant impact on the environment (40 CFR 1500.4(p)). Toward that end, DOE has categorically excluded the broad range of activities that routine maintenance encompasses as a single class of actions - 10 CFR § 1021, Subpart D, Appendix B — Categorical Exclusions Applicable to Specific Agency Actions, Class of Action B1.3, "Routine maintenance/ custodial services for buildings, structures, infrastructures, equipment":

"B1.3 Routine maintenance activities and custodial services for buildings, structures, rights-of-way, infrastructures (e.g., pathways, roads, and railroads), vehicles and equipment, and localized vegetation and pest control, during which operations may be suspended and resumed. Custodial services are activities to preserve facility appearance, working conditions, and sanitation, such as cleaning, window washing, lawn mowing, trash collection, painting, and snow removal. Routine maintenance activities, corrective (that is, repair), preventive, and predictive, are required to maintain and preserve buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Routine maintenance may result in replacement to the extent that replacement is in kind and is not a substantial upgrade or improvement. In kind replacement includes installation of new components to replace outmoded components if the replacement does not result in a significant change in the expected useful life, design capacity, or function of the facility. Routine maintenance does not include replacement of a major component that significantly extends the originally intended useful life of a facility (for example, it does not include the replacement of a reactor vessel near the end of its useful life). Routine maintenance activities include, but are not limited to:

- (a) Repair of facility equipment, such as lathes, mills, pumps, and presses;
- (b) Door and window repair or replacement;
- (c) Wall, ceiling, or floor repair;
- (d) Reroofing:
- (e) Plumbing, electrical utility, and telephone service repair;
- (f) Routine replacement of high-efficiency particulate air filters; (g) Inspection and/or treatment of currently installed utility poles;
- (h) Repair of road embankments;

- (i) Repair or replacement of fire protection sprinkler systems;
- (j) Road and parking area resurfacing, including construction of temporary access to facilitate resurfacing;
- (k) Erosion control and soil stabilization measures (such as reseeding and revegetation);
- (1) Surveillance and maintenance of surplus facilities in accordance with DOE Order 435.1, "Radioactive Waste Management";
- (m) Repair and maintenance of transmission facilities, including replacement of conductors of the same nominal voltage, poles, circuit breakers, transformers, capacitors, cross arms, insulators, and downed transmission lines, in accordance, where appropriate, with 40 CFR part 761 (Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions);
 - (n) Routine testing and calibration of facility components, subsystems, or portable equipment (including but not limited to, control valves, in-core monitoring devices, transformers, capacitors, monitoring wells, lysimeters, weather stations, and flumes); and
- (o) Routine decontamination of the surfaces of equipment, rooms, hot cells, or other interior surfaces of buildings (by such activities as wiping with rags, using strippable latex, and minor vacuuming), including removal of contaminated intact equipment and other materials (other than spent nuclear fuel or special nuclear material in nuclear reactors)."

Based on the DOE CX, routine maintenance activities, therefore, fall into four general categories:

Maintenance

Corrective (that is, repair), preventive, and predictive maintenance required to maintain buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose.

Custodial Services

Activities to preserve facility appearance, working conditions, and sanitation (e.g., cleaning, window washing, lawn mowing, trash collection, painting, and snow removal)

Replacement In-Kind

A one-for-one change-out, repair or replacement that is in kind and is not a substantial upgrade or improvement. In kind replacement includes installation of new components to replace outmoded components if the replacement does not result in a significant change in the expected useful life, design capacity, or function of the facility.

Minor Modifications

Changes that are made to preserve buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Such modifications include, but are not limited to, the institution of administrative and engineering controls to meet building and safety codes, to resolve ALARA (as low as reasonably achievable) concerns, and to maintain safe and efficient working conditions (e.g., installation of lighting, safety signage, non-slip surfacing, and weather-protection enclosures or canopies).

In accordance with the limitations on routine maintenance imposed by 10 CFR § 1021, none of the activities addressed in this environmental checklist would be performed as:

- Part of, or in support of, a larger project that requires either an Environmental Assessment (EA) or an Environmental Impact Statement (EIS);
- Actions that would change the scope or mission of a facility;
- Actions that would cause a significant increase in environmental impacts of a facility;
- · Actions that would affect any sensitive area or natural resources; or
- A substantial upgrade or improvement that would significantly extend the useful life of a facility.

Description of Proposed General Maintenance Activities and Processes

The following lists provide examples of the areas, facilities, processes, systems and types of equipment that routinely require maintenance at the WVDP. The lists include all the activities that are foreseeably necessary to accomplish a particular maintenance action, custodial service, replacement in-kind, or minor modification (e.g., the excavation that is necessary to access an underground utility line that requires repair). Notwithstanding, the lists are not all inclusive.

***Areas Requiring Maintenance

The facilities, processes and/or systems requiring maintenance include, but are not limited to, the following:

Acid Handling Systems

Animal Control Procedures

Blueprint Facilities

Cargo Trailers

Cement Solidification System (CSS)

Chemical Bulk Storage

Chemical Process Cell-Waste Storage Area (CPC-WSA)

Cold Chemical Facility

Communication Systems

Computer Systems

Cooling, Utility, Demineralized and Potable Water Systems

Condensate Recovery System

Construction and Demolition Debris Landfill (CDDL)

Contact Size-Reduction Facility (CSRF)

Container Sorting and Packaging Facility (CSPF)

Contamination Monitors

Counting Room Facilities

Crane Rooms and Associated Enclosures

Electrical Distribution Facilities

Environmental Monitoring and Surveillance

Equalization Basin

Fabrication Support Shop

Fire Protection and Detection Systems

Fire Pump House/Stations

Fuel Receiving and Storage (FRS) Area

Guardhouses

Groundwater and Seep Monitoring

Hardstands

Hazardous Waste Storage

Head-End Cells

High-Level Liquid Waste Storage

High-Level Waste Interim Storage

Hydrogen-Peroxide Addition System

Integrated Radwaste Treatment System (IRTS)

Interim Waste Storage Facility (IWSF)

Laboratories (Analytical, Process, and Environmental)

Lag Storage Building

Lag Storage Areas 1, 3, 4, and Depot

Lagoons

Laundry Facilities

Lay-Down Areas

Liquid Waste Treatment System (LWTS)

Low-Level Waste Treatment Facilities (02 Plant and LLW2) and all Lagoons

Waste Storage [Low-Level Radioactive Waste (LLW), Mixed LLW, Transuranic (TRU), Greater-Than-Class C (GTCC)]

LWTS Product Storage

Main Plant

Maintenance Shops

Mercury Abatement System

Meteorological Monitoring

NDA Interceptor Trench and Water System, Liquid Pretreatment System

North Plateau Pump-and-Treat System

Nuclear Regulatory Commission (NRC) Disposal Area (NDA)

Office Buildings, Trailers, and Speed Spaces

Permeable Treatment Wall

Petroleum Bulk Storage

Plant Utilities (Air, Electrical, Gas, Water)

Process Building

Process Waste Handling

Railroad Spur

Radwaste Treatment System (RTS) Drum Cell

RTS Drum Load-out and Transport

Restrooms and Locker Rooms

Remote Handled Waste Facility (RHWF)

Scaled Vitrification System

Security Systems

Sewage Treatment Plant

Site Roadways, Parking Areas, Culverts, and Ditches

Size Reduction and Compactor Area

Sludge Mobilization Transfer System

Sludge Mobilization and Washing System

Solid Radioactive Waste Handling

Stormwater Management Systems

Substations

Supernatant Treatment System (STS)

Switchyards

Telecommunication Systems

Test and Storage Building

Trailers (Office, Restroom, and Storage)

Utility Room and Expansion

Ventilation Systems

Vitrification Facility

Vitrification System (Scale)

Vitrification Load-In/Load-Out Facility

Vitrification Test Facility

Warehouses (On-site and Bulk Storage)

Waste Tank Farm

Wastewater Treatment, Sewers, and Sewage Treatment

Water Reservoirs, Dams and Spillway, and Culvert

Weather Structures - Enclosures and Canopies

01-14 Building

Equipment Requiring Maintenance

Plant process equipment requiring maintenance for the areas specified above includes, but is not limited to, the following:

Air Conditioners

Air and Other Gas Compressors

Alarms

Blowers, Fans, and Ducts

Boilers

Closed-Circuit Television (CCTV) Cameras

Communication Lines and Antenna, including Towers and Satellite Dishes

Computers and Peripherals

Condensate Recovery Equipment

Contamination Monitoring Equipment

Cranes and Hoists

Dampers

Eductors

Electrical Power Generators

Equalization Basins

Evaporators

Filters and Strainers

Fire Detection and Suppression Equipment

Grinders

Heat Exchangers

Highlifts, Forklifts

Hydrants

Hydrogen-Peroxide Addition Equipment

Ion-Exchange Columns

Instrumentation and Control Systems

Jets

Laboratory Equipment

Lagoons

Laundry Equipment

Liquid Distribution Systems

Machine Shop Equipment

Machinery

Manipulators and Crane Manipulators

Material Handling Equipment

Meteorological Tower and Monitoring Equipment

Melters

Mixers/Agitators

Motors

No_x Abatement System, including Off-Gas Analyzers

Piping

Portable Ventilation Units (10)

Power Distribution Equipment

Process Heaters

Pumps (Vacuum and Pressure) and Sumps

Radiation Monitoring Equipment

Restroom Equipment (Sinks, Showers, Toilets)

Roofing

Sampling Equipment

Shield Windows/Doors

Site Characterization and Environmental Monitoring Equipment

Snowplows

Substations

Space Heaters

Switch Yards

Tanks, Process Chambers, and Vessels

Test Equipment

Transformers

Turbines and Engines

Valves

Vehicles (e.g., Earth-Moving Equipment, Trucks, Vans)

Ventilation

Waste Compactors

Welding Equipment

Maintenance Activities

- Performance of independent verifications and inspections (both visual and remote) in support of budget and scheduling, maintenance planning, regulatory compliance, and improvement of plant safety.

 Verification and inspections include, but are not limited to, photography, configuration checks, robotics controlled surveillance, sample gathering, the use of mock-ups and/or test equipment.
- 2.0 Direct replacement of existing equipment and/or facility components.
- 3.0 Excavation and back-filling for the maintenance and repair of underground plant utility systems and services as well as minor extensions of existing utilities from existing plant utility systems.
- 4.0 Maintenance of plant utility systems and services, including, but not limited to:
 - water

· waste treatment and sewage

· electrical

• natural gas, nitrogen and carbon dioxide (CO₂)

air

communications and data processing

• fuel oil

· caustic/acid chemical addition system

• gasoline

steam

- diesel
- 4.1 Maintenance of plant water systems, including, but not limited to:
 - fire pump house/station and equipment at the reservoirs
 - cooling water
 - potable water
 - utility water system, steam condensate system, and treated water systems such as demineralized, distilled, and soft water
 - fire protection systems, including water, dry, and other fire extinguishing equipment
- 4.2 Maintenance of wastewater treatment facilities/systems.
 - Inspection, cleaning and repair of manholes, sewer lines, traps, treatment process tanks and chambers, and pipe clean-outs
 - Maintenance and repair of the WVDP sewage treatment plant and low-level wastewater treatment facility, including, but not limited to:
 - treatment basins, vessels, tanks, chambers, and pits
 - process and effluent monitoring equipment
 - stormwater drainage systems
 - sanitary sewers
 - wastewater holding lagoons and lagoon discharge system

- plant drainage (e.g., foundation under-drains)
- addition of chemicals for controlling wastewater quality (e.g., pH)
- 4.3 Maintenance of electrical systems, including, but not limited to:
 - Pump motors, manipulators, blower motors, motor starters, starter control systems, substations, and switchgear
 - Electrical system component upgrades, replacement, or installation and rewiring of conduit, junction, switch and receptacle boxes; rerouting and minor additions of conduit, wire, cable, control panels, boxes and receptacles (i.e., minor additions for 480-volt system or less); placement of new wire in existing conduit; installation of conduit supports to facilitate access and maintenance
 - · Regular and emergency lighting
 - · Circuit and wiring
 - Replacement of breakers, switches, disconnects, transformers, utility poles, insulators, and the replacement of downed distribution lines
- 4.4 Maintenance of mechanical systems, such as piping, valves, and ducts.
- 4.5 Maintenance of utility and instrumentation air service systems.
- 4.6 Maintenance of natural gas service, including, but not limited to, service lines from meters and tanks to the site equipment.
- 4.7 Maintenance of fuel oil service (e.g., tanks and service lines).
- 4.8 Maintenance of plant acid and chemical addition systems.
- 4.9 Maintenance of communications and data processing systems, including, but not limited to:
 - · Public address systems
 - Telephone systems, including facsimile (FAX), modems, and data collection lines (e.g., meteorology system)
 - · Alarm systems, including fire and radiation detection
 - Mainframe and personal computers and peripheral systems
 - Antenna, including towers and satellite dishes
 - Transmission lines, including fiber optics
- 4.10 Maintenance of process off-gas particulates and NO_x reduction, including off-gas analyzers calibration, replacement, etc.
- 5.0 Maintenance of process instrumentation, including, but not limited to:
 - Alarm systems electric, digital, and pneumatic instruments and systems used for controlling, recording, and alarming process variables; component replacement and repair, including, but not limited to, trouble-shooting, fitting adjustments, functionally equivalent component replacement, retubing, mounting and rewiring, testing, and calibration

- 6.0 Maintenance of heating, ventilation and air conditioning (HVAC), repair, and replacement of HVAC systems and filters including, but not limited to:
 - Office/Support Structure Spaces (HVAC)
 - Permanent Ventilation System (PVS)
 - Main Plant HVAC
 - 01-14 Building HVAC
 - · Vitrification Facility System HVAC
 - Head End Ventilation System HVAC
 - Main Ventilation System
 - · WTF Ventilation System
 - FRS Ventilation System
 - Portable Ventilation Units (PVUs)
 - High-Efficiency Particulate Air (HEPA) Filters
 - Installation and maintenance of HVAC when required for personnel comfort
- 7.0 Routine site and plant maintenance and custodial services (not within potential or known critical wildlife habitats or delineated wetlands, creeks, or other waters of the state) including, but not limited to:
 - · Grounds maintenance, such as lawn mowing, grass trimming, shrub and tree pruning
 - Application of approved pesticides and rodenticides
 - · Snow shoveling, plowing, and removal
 - · Grading, drainage, and culvert repairs
 - Routine revegetation and erosion control activities
 - · Repair and Replacement of building and structure foundations
 - Installation of non-skid surfaces on steps, ramps, and other well-traveled areas
 - Maintenance of paved areas, including, but not limited to, parking lots, sidewalks, and roads as well as
 the minor addition of hard surface paving and hardstands on previously stoned areas
 - · Minor extensions of existing roadways
 - · Maintenance of the WVDP Rail Spur
 - Establishing storage areas for maintenance tools, equipment, and supplies
 - · Janitorial, cleaning, and housekeeping activities
 - · Handling, storage, and removal/disposal of recyclables, industrial, hazardous, and radioactive wastes

- · Calibration, repair, and replacement of radiation monitoring equipment, including portal monitors
- Routine load testing of lifting equipment
- Maintenance activities in radiologically contaminated areas, not to include decommissioning
- Periodic routine cleaning of stormwater drainage systems (e.g., ditches, catch basins, etc.)
- Conducting animal control procedures (e.g., trapping, relocation, sampling, etc.)
- 8.0 Buildings and structural maintenance including, but not limited to:
 - Painting and coating in-door and out-door surfaces of facility equipment and other structures (e.g., walls, floors, ceilings, and decks) with paint, epoxy, and other coatings as well as surface preparations, such as cleaning, grouting, scraping, sanding, sandblasting, or other methods of surface preparation
 - · Installation, repair, and replacement of exterior siding, rain-gutters, and heat tracing
 - Removal and replacement of existing roofing materials and installation of insulating materials, roofing materials, and sealants
 - · Repair or replacement of decks, doors, ceilings, walls, windows, floors, and floor covering
 - Removal of asbestos or asbestos-related material that can no longer be maintained in place or for which removal is necessary to support the maintenance activity
 - Minor modifications to existing structures to increase effective use of space (e.g., door, ceiling, wall, window stairs, platforms and ramp repositioning)
 - Removal and storage/disposal of obsolete or unused equipment
 - Replacement and/or relocation of existing office and cargo trailers, speed spaces, lean-tos, equipment shelters, and storage sheds
 - Dismantling of storage sheds, lean-tos, equipment shelters, trailers other similar structures, and any
 appurtenances attached thereto
- 9.0 Maintenance and minor modifications required to maintain security, communication, and data systems, to resolve safety concerns, and to prevent hazards, including, but not limited to:
 - Maintenance of on-site and off-site communications facilities, such as antennas, radios, and monitoring and data transfer systems
 - · Maintenance of detection, monitoring, surveillance, alarms, and camera systems
 - Repair of emergency equipment (e.g., generators)
 - · Installation, maintenance, and repair of security fencing, gates, and lighting systems
 - Installation of protective guards on machinery
 - Addition of safety showers and eye-wash stations to existing systems whereby only minor piping changes are required
 - Fabrication, installation, and repair of steps, ramps, walk ways, safety railing, hand rails, guard rails, and frames

- · Routine decontamination and spill clean-up procedures
- Installation and repair of fire protection systems, including, but not limited to, portable and fixed firefighting equipment as well as sprinkler systems
- Installation and maintenance of freeze protection and related activities, including the removal of old insulation and the installation of new insulation
- Excavations for the installation of utility systems
- Maintenance and repair of vehicles and power equipment (excluding air conditioning and emission control systems), including, but not limited to, trucks, earth-moving equipment, mowers, forklifts, and so forth.
- 11.0 Maintenance and repair of on-site and off-site environmental monitoring equipment and stations, including but not limited to:
 - Trimming trees and cutting grass around the environmental monitoring stations
 - · Repair to environmental monitoring sheds
 - Placing stone, crushed gravel, etc in walkways and/or concrete pads around and under the environmental monitoring stations
 - Instituting weed control measures such as adding geotextile fabric around the stations
 - Upgrading electrical systems of environmental monitoring stations

PURPOSE AND NEED

The Cooperative Agreement between NYSERDA and DOE, Article IV, Section 4.08, "Operation, Maintenance and Repair," states, "The Department shall operate and maintain the Project Premises, Project Facilities and such Additional Facilities that it uses in carrying out the Project and as may be necessary or appropriate to carry out the Project in a manner which protects public health and safety and complies with the provisions of this Agreement. As used in this Section, the term 'maintain' shall include, but not be limited to, the obligation to make all necessary and appropriate repairs, changes, alterations, and additions thereto or replacements thereof, interior and exterior, structural and non-structural, ordinary and extraordinary, foreseen and unforeseen." In a similar manner, DOE Order 430.1B, "Real Property Asset Management," requires all DOE sites to maintain real property assets "in a manner that promotes operational safety, worker health, environmental compliance, property preservation and cost-effectiveness while meeting the program missions" (Attachment 1, Section 5).

SCHEDULE/TIMING

The routine maintenance activities evaluated in this environmental checklist would be performed on a routine and "as-needed" basis through the end of CY 2003 and throughout calendar year (CY) 2004. Maintenance activities performed by WVNSCO personnel would be scheduled in accordance with the WVNSCO Maintenance Manual (WVDP-170), Section 5.5.4, which specifies that procedures WV-108, "Preventive Maintenance Recall Tracking System and Component Information Input," and WV-109, "Instrument Data and Recall Tracking System," be utilized to determine the frequency at which routine maintenance activities are to be performed. Procedures WV-108 and WV-109 specify that these determinations be based on manufacturer manuals, plant experience, and good engineering practices. Maintenance activities performed by subcontractor personnel would be scheduled in accordance with procedure EP-7-003, "Preparation, Review, Approval and Administration of Construction Bid Packages," Attachment A, Section 12.

SECTION B. SOURCES OF IMPACT:

1. Air Emissions - There would be minor CO and CO₂ air emissions generated from the construction equipment used to perform routine maintenance activities at the WVDP. Typically, this equipment includes trucks, excavators, paving equipment, front-end loaders, lawn maintenance, and snow removal equipment. These emissions would occur intermittently over an 8-hour day. Fugitive dust could be generated during maintenance activities. Such dust would be controlled as necessary to minimize impact.

Volatile organic compound (VOC) emissions could be generated from painting. Similarly, particulate emissions could be generated from sandblasting. Routine maintenance activities with the potential to generate either of these emissions would be evaluated on a case-by-case basis to determine regulatory requirements under the Clean Air Act, as amended.

The charging and recharging of air conditioning and refrigeration compressors by certified technicians would be controlled to limit gas emissions.

2. Liquid Effluents - Liquid effluents that are generated include wastewater from WVDP facilities, mixed waste from defined waste streams and sanitary and industrial wastewater, and stormwater run-off contaminated from industrial activities.

Waste water from the plant drains, surface runoff, cooling tower blowdown, laundry, and interceptor trench water from the NRC-licensed disposal area (NDA) is treated at the existing low-level waste treatment facility (LLWTF).

These waste streams, following collection in Lagoon 2, are treated using a filtration and ion-exchange process. The effluent is released to Lagoons 4/5 for subsequent sampling and release to Lagoon 3. When discharge criteria are met, the final effluent is released from Lagoon 3 to the environment through a monitored NYS Pollutant Discharge Elimination System (SPDES) outfall.

Utility and sanitary wastewater is treated at the Wastewater Treatment Facility, which has a capacity of about 40,000 gallons/day. This activated sludge treatment process generates sludge having an excessive mass-to-food ratio. The sludge must be disposed under a permit to a publicly owned treatment works (POTW) having a State approved pretreatment program for trucked waste. Composite sampling of treated water effluent is taken prior to discharge to Erdman Brook.

3. Solid Waste - Typical construction waste such as boxes, wood forms, concrete, asphalt, wiring, piping, paper, waste materials (insulation, wood, metal) would be generated. About 7,650 m³ is currently generated annually and transported to a properly permitted solid waste landfill for disposal.

An active program to minimize waste generation is in place at the WVDP. The waste minimization program includes both source reduction and recycling. Examples include implementation of a DOE policy of double-sided copy reproduction to reduce the amount of paper used for copying, the recycling of computer printer toner cartridges as well as the reuse of styrofoam "peanuts" for packaging and shipping. Waste Minimization and Pollution Prevention Opportunities are also an integral part of the work review process. Pollution prevention opportunities are under consideration for identifying WMin/PP opportunities associated with Routine Maintenance activities.

4. Radioactive Waste/Soil - Maintenance activities performed inside contaminated areas would result in some radioactive waste. Typical types of waste would include anti-contamination clothing, rags, radiation enclosures and barriers, wood, dirt, contaminated materials and components (e.g., pumps, piping, roofing materials), decommissioning debris, contaminated HEPA filters, and contaminated absorbent used to clean up small spills. These materials would be packaged, compacted, and stored in existing on-site storage facilities pending disposal.

For excavation in an area suspected to be radioactively contaminated, WVDP Site Radiation Protection personnel would assist in developing specific work plans to minimize the potential for encountering contaminated media. The excavated soil would be screened for radioactive contamination. If contaminated water or soils were encountered, they would be characterized according to SOP 300-7, "Waste Status Determination." Any contaminated soils must be packaged in accordance with SOP 09-02, "Radioactive Waste Packaging/Repackaging," Section 5.8, "Guidelines for Packaging Excavated Contaminated Soils." The proposed excavation and how it is to be completed would be designed to minimize the potential for encountering contaminated media.

In an effort to reduce the amount of LLW generated at the WVDP, segregation of clean debris from radioactively contaminated areas and debris is undertaken. Radioactively contaminated tools are kept in contaminated areas for reuse rather than disposal at the completion of the activity.

5. Hazardous Waste - Maintenance activities performed on equipment containing hazardous materials, such as acids, listed solvents, and heavy metals may require management as hazardous waste. In addition, some maintenance activities may require the use of hazardous solvents.

Activities would be planned and performed using waste minimizing strategies to limit the generation of hazardous waste. Any hazardous materials would be stored, treated, and disposed of in compliance with applicable RCRA regulations.

- 6. Mixed Waste Mixed waste generated on-site from defined waste streams are stored in interim status units, 90 day areas, or satellite accumulation areas. Maintenance activities performed may generate hazardous and radioactive materials. These wastes would be managed on-site as mixed waste. Activities would be planned and performed to minimize generation of mixed waste. Mixed waste would be stored and treated in compliance with applicable state and federal regulations, DOE Orders, and legal agreements.
- 7. Chemical Storage/Use Solvents and chemical cleaning agents may be used in some activities, including, but not limited to, janitorial and cleaning activities, parts cleaning, and cleaning pipes for welding.
- 8. Petroleum Storage Petroleum products to support maintenance activities (i.e., gasoline or diesel-powered equipment) are stored in on-site storage tanks. These tanks are monitored and inspected in accordance with the WVDP-043, Rev. 7, "Oil, Hazardous Substances, and Hazardous Wastes Spill Prevention, Control and Countermeasures Plan." A complete list of those tanks and the associated monitoring is found in the Plan.
- 9. Asbestos Some maintenance activities involve the removal of asbestos-containing materials (ACMs). The quantity of asbestos removed would be included in the Notification of Asbestos Removal submitted annually to EPA. About 600 linear feet of asbestos-containing materials is expected to be generated each year. All asbestos waste would be handled, packaged, and disposed in compliance with federal and state regulations, DOE Orders, and the WVDP Asbestos Management Plan (WVDP-072) as implemented by contractor procedures. Projects involving greater than 25 linear feet or 10 ft² of asbestos would be reviewed for State and/or Federal notification requirements. Asbestos waste would be sent to a properly permitted solid waste landfill for disposal except if radioactively contaminated, in which case would be managed as discussed above in Section 4, Radioactive Waste/Soil. Proposed asbestos-abatement projects that are not required for routine maintenance purposes are not covered by this Environmental Checklist/ Categorical Exclusion determination, and are required to undergo a separate NEPA review before being authorized to proceed. In such cases, Categorical Exclusion B 1.16, "Removal of Asbestos from Buildings," (10 CFR 1021, Subpart D, Appendix B) would be the appropriate CX determination.
- 10. Utilities In conjunction with the use of record drawings of underground utilities within the WNYNSC, an electronic line locator would be used to locate underground utilities. These locations are then marked on the ground. Excavation by hand instead of using powered excavation equipment would take place within two feet of a known underground utility.
- 11. Clearing/Excavation In order to repair or replace buried piping, wire conduit, or other system components, some excavation would be required. This excavation would be done within areas previously excavated and graded. No environmentally sensitive areas would be disturbed that would complicate or prohibit future remediation. The total amount of excavation required would be less than 2,000 m³ per year. The repaving of existing paved areas would not cause additional ground disturbances. Less than 1,000 m³ per year of asphalt paving would be applied.

- 12. Water Use/Diversion Activities would be performed on water systems as necessary. These activities would not include the installation of wells or major modifications to the water supply system such as main line extensions. Approximately 500,000 gallons of treated water are used by the site each year.
- 13. Water Treatment The water for the WVDP operations is piped from the WNYNSC reservoirs, treated for potability, possible drinking water use, as well as industrial, cooling and sanitary uses. See Section 2, Liquid Effluents for site wastewater information.
- 14. Waterway Modification Waterways throughout the WNYNSC would include roadside ditches, stormwater piping, catch basins, and culverts.

Inspections during site stormwater runoff episodes and periods of snowmelt can lead to the need for minor modifications and improvements to the stormwater drainage system. This can include ditch modifications, cleaning/removal of debris, installation of culvert pipes, earthen slope maintenance and repair and improvement of soil erosion controls. The appropriate erosion controls including, but not limited to, mulch (such as straw) cover on newly seeded grassed areas would control potential soil erosion and siltation of the waterways.

Segments of the site drainage system encroach regulated wetlands and associated buffer areas. Clean Water Act permits or exemption from permitting may be required for work in these segments.

- 15. Radiation/Toxic Chemical Exposure Maintenance activities would be performed in radiologically controlled areas. Although individual exposures would depend upon the duration of the activity and the proximity of the worker performing the activity to a source of radiation (e.g., waste containers, process tanks and piping), all exposures would be maintained as low as reasonably achievable (ALARA) and in compliance with applicable State and Federal regulations and DOE Orders as implemented by WVDP-010, "WVDP Radiological Controls Manual." Worker exposure is limited by guidance provided in the WVDP Radiological Controls Manual, WVDP Industrial Hygiene and Safety Manual (WVDP-011), SOP 15-14, "Entry Into and Exit From Contaminated Areas," and SOP 00-43, "Access Control of High and Very High Radiation Areas." The individual dose to workers would not exceed the administrative control limits of 100 mrem/day and 500 mrem/year (WVDP-010).
- 16. Pesticide Use The types of pesticides and the methods of pesticide application employed at the WVDP are controlled by federal and state laws, rules, and regulations. Pesticides are applied at the WVDP in accordance with Standard Operating Procedure (SOP) 40-03, "Use of Pesticides and Herbicides." In addition, the application of rodenticide at the WVDP is performed in accordance with WVDP-311, "Animal Control Operations."

"Restricted Use" and "General Use" pesticides are applied at the WVDP by certified applicators employed by a pesticide application business under subcontract to the WVDP.

Water and wastewater treatment chemicals (algicides, fungicides, and slimicides) are approved for use in the WVDP SPDES permit.

- 19. Noise Levels Maintenance and repair actions, such as cutting, grinding, welding, and hammering, may result in increased noise levels near the activity. The noise levels would be of short duration and probably would not exceed 85 dB(A) TWA (decibel level measured on the A scale as a time-weighted average over an eight-hour day). Applicable federal and state regulations and DOE Orders, as implemented by the subcontractor's safety procedures, would be observed during activities expected to generate elevated noise levels.
- 20. Workforce Adjustment Routine maintenance at the WNYNSC is typically undertaken by the WVDP workforce except in isolated cases such as the application of Restricted Use pesticides for which a Certified Applicator's license is required, or specialized skills rarely used on-site.

SECTION C. CATEGORY EVALUATION CRITERIA:

2. Take place in an area of previous or on-going disturbance?

The proposed action would take place in areas of previous or on-going disturbance (Figure 2).

SECTION D. RECOMMENDATION AND DETERMINATION:

A categorical exclusion (CX) is recommended for the proposed action. The routine maintenance activities described in this environmental checklist fall within the class of actions described in Title 10, Code of Federal Regulations (CFR) Part 1021, as Amended, Subpart D, Appendix B, CX 1.3, "Routine maintenance/custodial services for buildings, structures, infrastructures, equipment."

SUPPORTING DOCUMENTS

	DOE and NYSERDA	"Cooperative Agreement between United States Department of Energy and New York State Energy Research and Development Authority on the Western New York Nuclear Service Center at West Valley, New York," effective October 1, 1980, as amended September 18, 1981			
	DOE-EIS-025	U. S. Department of Energy, "Supplement Analysis of Environmental Impacts Resulting from Modifications in the West Valley Demonstration Project," dated September 7, 1993			
	DOE/EIS-0081	U. S. Department of Energy, "Final Environmental Impact Statement: Long- Term Management of Liquid High-Level Radioactive Wastes Stored at the Western New York Nuclear Services Center, West Valley," dated June 1982			
	DOE/EIS-0337-D	U. S. Department of Energy, "West Valley Demonstration Project Waste Management," dated April 2003			
	DOE Order 430.1B	U. S. Department of Energy, "Real Property Asset Management," dated September 24, 2003			
	DOE Order 451.1B	U. S. Department of Energy, "National Environmental Policy Act Compliance Program," dated September, 2001			
	DOE Order 435.1	U. S. Department of Energy, "Radioactive Waste Management," dated August 28, 2001			
	40 CFR §§ 1500 -1508	U. S. Council on Environmental Quality, "Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act," dated July 1, 1986			
	42 U.S.C. 4321 et seq.	U. S. Congress, National Environmental Policy Act, as Amended, dated January 1, 1970			
	OH-WVDP-2000-01	West Valley Demonstration Project, "Environmental Checklist OH-WVDP-2000-01, Site-Wide Routine Maintenance Activities," dated July 17, 2000			
	Public Law 96-368	U. S. Congress, West Valley Demonstration Project Act (S.2443), dated October 1, 1980			
	SOP OH-6.1.01	Ohio Field Office, "National Environmental Policy Act Compliance," revision 1, dated July 7, 1995			
SOP 00-12 West Valley Nuclear Services Company, "Maintenance Department - Preventive Maintenance Program," revision 6, dated October 9, 2003					
SOP 00-43 West Valley Nuclear Services Company, "Access Control of High and Very High Radiation Areas," revision 6, dated April 7, 2003					
SOP 15-14 West Valley Nuclear Services Company, "Entry Into and Exit From Contaminated Areas," revision 17, dated July 29, 2002					
	SOP 40-03 West Valley September 2	Nuclear Services Company, "Use of Pesticides and Herbicides," revision 2, dated 24, 2002			
	10 CFR § 1021	U. S. Department of Energy, "National Environmental Policy Act Implementing Procedures; Final Rule," dated July 9, 1996			

WV-108	West Valley Nuclear Services Company, "Preventive Maintenance Recall Tracking System and Component Information Input," revision 18, dated September 12, 2002
WV-109	West Valley Nuclear Services Company, "Instrument Data and Recall Tracking System," revision 13, dated October 1, 2002
WVDP-EIS-025	U. S. Department of Energy, West Valley Demonstration Project, "Supplement Analysis of Environmental Impacts Resulting from Modifications in the West Valley Demonstration Project," dated September 7, 1993
WVDP-010	West Valley Demonstration Project, "WVDP Radiological Controls Manual," revision 19, dated August 14, 2003
WVDP-011	West Valley Demonstration Project, "WVDP Industrial Hygiene and Safety Manual," revision 18, dated June 19, 2003
WVDP-043	West Valley Demonstration Project, "WVDP Spill Prevention, Control and Countermeasures Plan," revision 10, dated May 19, 2003
WVDP-072	West Valley Nuclear Services Company, "Asbestos Management Plan," revision 5, dated December 6, 2002
WVDP-170	West Valley Nuclear Services Company, "West Valley Nuclear Services Company Maintenance Manual," revision 5, dated May 9, 2003
WVDP-311	West Valley Nuclear Services Company, "Animal Control Operations," revision 1, dated April 10, 2001
WVDP-321	West Valley Demonstration Project, "Supplement Analysis II of Environmental Impacts Resulting from Modifications in the West Valley Demonstration Project," dated June 16, 1998

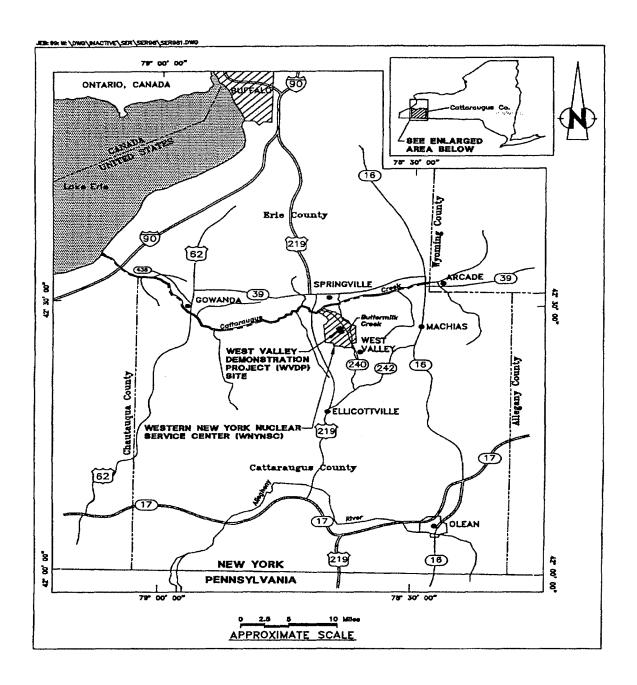


Figure 1. Western New York Nuclear Services Center (WNYNSC)

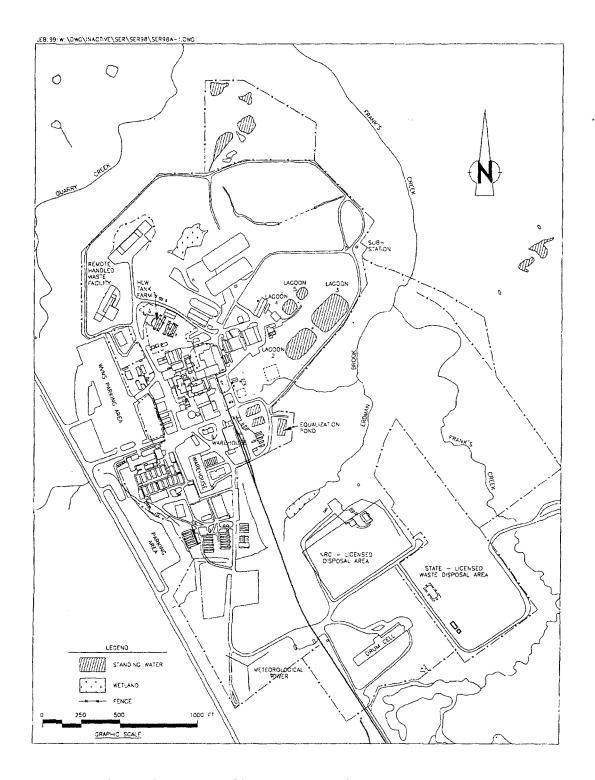


Figure 2. West Valley Demonstration Project (WVDP)

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J. P. Bleech	WV-50
J. R. Gerber	WV-51
J. J. Hoch	WV-50
D. P. Klenk	WV-50
K. A. Malone	WV-59
R. A. Mellor	WV-07
A. K. Shukla	WV-50
D. R. Westcott	WV-59
W. M. Wierzbicki	WV-51